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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hiroshi Ito

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LADAS & PARRY LLP  
26 WEST 61ST STREET  
NEW YORK, NY 10023

EXAMINER

NILAND, PATRICK DENNIS

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,975	<b>Applicant(s)</b> ITO ET AL.	
	<b>Examiner</b> Patrick D. Niland	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/6/08.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1796

1. The amendment of 5/6/08 has been entered. Claims 1-10 and 12-19 are pending.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A. There is not basis in the originally filed specification for the full scope of the newly presented claim 19. The examples do not support the full scope of the newly presented claim 19. The newly added scope is new matter.

5. Claim 19 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the disclosed compositions having the properties as required by the instant claim 19, does not reasonably provide enablement for all compositions now encompassed but not enabled and described by the instant specification. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The instant claim 19 encompasses a potentially infinite number of compositions having the claimed properties. The enabling specification does not describe nor give guidance

Art Unit: 1796

commensurate in scope with In re Wands to enable the skilled artisan to make all of the compositions encompassed by the instant claim 19 without undue experimentation.

In re Wands has 8 criteria, (MPEP 2164.01(a)), as shown below.

(A)The breadth of the claims;

(B)The nature of the invention;

(C)The state of the prior art;

(D)The level of one of ordinary skill;

(E)The level of predictability in the art;

(F)The amount of direction provided by the inventor;

(G)The existence of working examples; and

(H)The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

It is noted that the instant claims read on an infinite number of compositions (Wands factor A). The specification does not describe how to make all such compositions having the claimed properties which will function as required in the instant invention (Wands factors F, G). It would require an infinite amount of experimentation to determine how to make all of the compositions encompassed by the instant claims (Wands factor H). Chemistry is an unpredictable art (Wands factor E). The ordinary skilled artisan has not imagined nor figured out how to make all of the compositions having the properties of the instant claim 19 yet (Wands factors C, D, E, F, G, and H). The enabling disclosure is not commensurate with the full scope of the claim 19.

Art Unit: 1796

6. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. It is unclear what the units of solubility are to be in claim 4.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-6, 8-10, and 12-19 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99/50365 Yeates et al..

Yeates discloses the instantly claimed compositions at the abstract; page 1, lines 1-36, particularly 23-29; page 2, lines 1-38, particularly 5-21, of which the partial neutralization gives the instantly claimed structures I and II; page 3, lines 1-37, particularly 1-10; page 6, lines 1-39, particularly 19-24; page 7, lines 1-39, particularly 15-31, more particularly lines 17-18, which fall within the scope of the instant claim 4, lines 23-24 of which the polyalkylene glycols fall within the scope of the instant claim 3, and line 28, which falls within the scope of the instant claim 2; page 9, lines 4-19, particularly 14-19, where the buffers that give the alkaline pHs fall within the scope of the instant claims 13-14; and the remainder of the document. Given the lack

Art Unit: 1796

of specificity of the claimed structures I and II of the instant claims, the polymers of the reference can be divided into any structures desired so as to meet the limitations of the instant claims. Polymers are a mixture of varying molecules as evidenced by average polymer concepts such as molecular weight, functionality, and monomer distribution. Since the instant claims 15-16 do not specify the polymers of these claims, some portion of the polyacrylate of the reference may be taken that meets the limitations of these claims. The ink jet printed and resulted printed substrate of the reference meet the instant claims 17-18.

The applicant's argument that the instantly claimed composition gives high storage stability is not supported for the full scope of the instant claims which do not define the instantly claimed first and second repeating structures. As such any of the repeating structures of the reference can be defined so as to meet the instantly claimed amounts. It is noted that the instant claim 1 does not have the same requirement of the instant claim 19 that the first repeating unit structure be carboxyl. As such any structure, even if unneutralizable, reads on the instantly claimed first repeating unit structure. The applicant's arguments are therefore not commensurate in scope with the instant claims and the cited prior art. "Partially neutralized" of page 2, line 17 of the reference will fall within the instantly claimed broad range of amounts because of the lack of definition of the instant claims as to what constitutes the claimed units. As such, the polymer of the reference can necessarily be divided into units that meet the instantly claimed amounts. Given the similarity or sameness of the polymer of the reference, as discussed above, it is expected that the instantly claimed properties of the instant claim 19 will be necessarily inherent in the compositions of the reference.

The applicant's arguments have been fully considered but are not persuasive for the reasons stated above and the teachings of the cited prior art. This rejection is therefore maintained.

10. Claims 1-6, 8-10, and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/50365 Yeates et al..

Yeates discloses the instantly claimed compositions at the abstract; page 1, lines 1-36, particularly 23-29; page 2, lines 1-38, particularly 5-21, of which the partial neutralization gives the instantly claimed structures I and II; page 3, lines 1-37, particularly 1-10; page 6, lines 1-39, particularly 19-24; page 7, lines 1-39, particularly 15-31, more particularly lines 17-18, which fall within the scope of the instant claim 4, lines 23-24 of which the polyalkylene glycols fall within the scope of the instant claim 3, and line 28, which falls within the scope of the instant claim 2; page 9, lines 4-19, particularly 14-19, where the buffers that give the alkaline pHs fall within the scope of the instant claims 13-14; and the remainder of the document. Given the lack of specificity of the claimed structures I and II of the instant claims, the polymers of the reference can be divided into any structures desired so as to meet the limitations of the instant claims. Polymers are a mixture of varying molecules as evidenced by average polymer concepts such as molecular weight, functionality, and monomer distribution. Since the instant claims 15-16 do not specify the polymers of these claims, some portion of the polyacrylate of the reference may be taken that meets the limitations of these claims. The ink jet printed and resulted printed substrate of the reference meet the instant claims 17-18.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the above discussed combinations of ingredients and amounts thereof because they are encompassed by the reference and would have been expected to give the

Art Unit: 1796

printing properties described by Yeates. There are no unexpected results seen which are demonstrated in a manner commensurate in scope with the instant claims and the cited prior art. The applicant's argument that the instantly claimed composition gives high storage stability is not supported for the full scope of the instant claims which do not define the instantly claimed first and second repeating structures. As such any of the repeating structures of the reference can be defined so as to meet the instantly claimed amounts. It is noted that the instant claim 1 does not have the same requirement of the instant claim 19 that the first repeating unit structure be carboxyl. As such any structure, even if unneutralizable, reads on the instantly claimed first repeating unit structure. The applicant's arguments are therefore not commensurate in scope with the instant claims and the cited prior art. "Partially neutralized" of page 2, line 17 of the reference will fall within the instantly claimed broad range of amounts because of the lack of definition of the instant claims as to what constitutes the claimed units. As such, the polymer of the reference can necessarily be divided into units that meet the instantly claimed amounts. Given the similarity or sameness of the polymer of the reference, as discussed above, it is expected that the instantly claimed properties of the instant claim 19 will be necessarily inherent in the compositions of the reference.

The applicant's arguments have been fully considered but are not persuasive for the reasons stated above and the teachings of the cited prior art. This rejection is therefore maintained.

11. Claims 1-10 and 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/50365 Yeates et al. in view of EP 0899311 A1 Yamazaki et al..

Yeates discloses the instantly claimed compositions at the abstract; page 1, lines 1-36, particularly 23-29; page 2, lines 1-38, particularly 5-21, of which the partial neutralization gives



Art Unit: 1796

the instantly claimed structures I and II; page 3, lines 1-37, particularly 1-10; page 6, lines 1-39, particularly 19-24; page 7, lines 1-39, particularly 15-31, more particularly lines 17-18, which fall within the scope of the instant claim 4, lines 23-24 of which the polyalkylene glycols fall within the scope of the instant claim 3, and line 28, which falls within the scope of the instant claim 2; page 9, lines 4-19, particularly 14-19, where the buffers that give the alkaline pHs fall within the scope of the instant claims 13-14; and the remainder of the document. Given the lack of specificity of the claimed structures I and II of the instant claims, the polymers of the reference can be divided into any structures desired so as to meet the limitations of the instant claims 5-6 and 11-12. Polymers are a mixture of varying molecules as evidenced by average polymer concepts such as molecular weight, functionality, and monomer distribution. Since the instant claims 15-16 do not specify the polymers of these claims, some portion of the polyacrylate of the reference may be taken that meets the limitations of these claims. The ink jet printed and resulted printed substrate of the reference meet the instant claims 17-18.

It would have been obvious to one of ordinary skill in the art at the time of the instantly claimed invention to use the above discussed combinations of ingredients and amounts thereof because they are encompassed by the reference and would have been expected to give the printing properties described by Yeates and to use carbon black of the instant claim 7 therein because carbon black is encompassed by the broadly claimed "colorant" of the claims of Yeates, e.g. claim 1, and is shown by Yamazaki to be a conventional black colorant for acrylic based ink jet inks which is expected to contribute its well known colorant properties to the inks of Yeates.

There are no unexpected results seen which are demonstrated in a manner commensurate in scope with the instant claims and the cited prior art.

Art Unit: 1796

The applicant's argument that the instantly claimed composition gives high storage stability is not supported for the full scope of the instant claims which do not define the instantly claimed first and second repeating structures. As such any of the repeating structures of the reference can be defined so as to meet the instantly claimed amounts. It is noted that the instant claim 1 does not have the same requirement of the instant claim 19 that the first repeating unit structure be carboxyl. As such any structure, even if unneutralizable, reads on the instantly claimed first repeating unit structure. The applicant's arguments are therefore not commensurate in scope with the instant claims and the cited prior art. "Partially neutralized" of page 2, line 17 of the reference will fall within the instantly claimed broad range of amounts because of the lack of definition of the instant claims as to what constitutes the claimed units. As such, the polymer of the reference can necessarily be divided into units that meet the instantly claimed amounts. Given the similarity or sameness of the polymer of the reference, as discussed above, it is expected that the instantly claimed properties of the instant claim 19 will be necessarily inherent in the compositions of the reference.

The applicant's arguments have been fully considered but are not persuasive for the reasons stated above and the teachings of the cited prior art. This rejection is therefore maintained.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1796

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick D. Niland whose telephone number is 571-272-1121. The examiner can normally be reached on Monday to Thursday from 10 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Patrick D Niland/  
Primary Examiner  
Art Unit 1796